In the Claims[1]

Please amend claims 21, 26 and 27 to read as follows:

21. (Twice Amended) A scrubbing process for the abatement of a gas component in a gas stream containing same, said scrubbing process comprising introducing the gas stream and a scrubbing liquid to a first gas/liquid contacting chamber and effecting gas/liquid contacting therein, wherein said process additionally at least one of the steps of:

(a) introducing a chemical reagent for contact with the gas component to remove same from the gas stream in said gas/liquid contacting;

(b) introducing to the gas stream prior to entry thereof into the contacting chamber, a gas to enhance removal of silane from the gas stream when present therein;

(c) flowing the effluent gas from the first contacting chamber to a second gas/liquid contacting chamber and introducing to said second contacting chamber a second scrubbing liquid for gas/liquid contacting therein, wherein the first gas/liquid contacting in the first chamber comprises cocurrent flow of the gas stream and scrubbing liquid and wherein the second gas/liquid contacting in the second contacting chamber comprises countercurrent flow of the gas stream and the second scrubbing liquid through the second contacting chamber, wherein said second contacting chamber has a smaller volume than that of said first contacting chamber;

(d) introducing an antifoam agent to scrubbing liquid for said gas/liquid contacting, to suppress foam production in the contacting chamber;

(e) suppressing deposition of calcium carbonate from scrubbing liquid containing calcium, including a step selected from the group consisting of:

[1] Applicants have provided a marked-up version of the amended claims 21, 26, and 27 in Appendix A, and a clean set of all pending claims, amended to date, in Appendix B.

(2) adjusting the pH of the scrubbing liquid to maintain pH thereof below 8.5;

(3) flowing the scrubbing liquid through a lime-soda ash bed prior to use of the scrubbing liquid in the contacting chamber; and

(4) precipitating the calcium content of the scrubbing liquid prior to use of the scrubbing liquid in the contacting chamber; and

(f) suppressing solids formation in a passage of the scrubbing system, said passage comprising a conduit to a pressure sensing device, including a step selected from the group consisting of flowing a purge gas through the passage to suppress solids formation therein, and heating the passage to suppress solids formation therein.

26. (Amended) A scrubbing process for treatment of an effluent gas including acid gas components and water-scrubbable components other than acid gas component, said process comprising:

scrubbing the effluent gas with a neutral aqueous scrubbing liquid in a first scrubbing zone to remove the acid gas components of the effluent gas, with co-current flow contacting of the aqueous scrubbing liquid and effluent gas with one another to yield effluent gas reduced in acid gas components;

flowing the effluent gas reduced in acid gas components from the first scrubber unit to a second scrubber unit; and

scrubbing the effluent gas with a second aqueous scrubbing liquid in the second scrubbing zone to remove water-scrubbable components other than acid gas component from the effluent gas, with counter -current flow contacting of the second aqueous scrubbing liquid and effluent gas with one another to yield effluent gas reduced in acid gas components and water-scrubbable components other than acid gas components, wherein said second scrubbing zone has a volume smaller than that of said first scrubbing zone.

27. (Amended) The process according to claim 26, wherein the first scrubbing zone is a vessel enclosing an interior volume containing a bed of packing medium ⊙

Please add the following claims 51-64:

51. The process according to claim 26 wherein the scrubbing liquid in the second scrubbing zone contains no caustic reagent.

52. The process according to claim 21 wherein the scrubbing liquid in the first contacting chamber is neutral water.

53. The process according to claim 21 wherein the first scrubbing liquid contains no caustic reagent.

54. The process according to claim 21 wherein the second scrubbing liquid contains no caustic reagent.

55. The process according to claim 21 wherein the second contacting chamber has a smaller diameter than the first contacting chamber.

56. The process according to claim 26 wherein the second scrubbing zone has a smaller diameter than the first scrubbing zone.

57. The process according to claim 21 wherein the diameter of the second contacting chamber is about one-fifth the diameter of the first contacting chamber.

58. The process according to claim 26 wherein the diameter of the second scrubbing zone is about one-fifth the diameter of the first scrubbing zone.

59. The process according to claim 21 wherein the second contacting chamber has a relatively substantially lower water flow rate than the first contacting chamber.

60. The process according to claim 26 wherein the second scrubbing zone has a relatively substantially lower water flow rate than the first scrubbing zone.

61. A scrubbing process for the abatement of a gas component in a gas stream containing same, said scrubbing process comprising:
introducing the gas stream and a scrubbing liquid to a first gas/liquid contacting chamber and effecting gas/liquid contacting therein; flowing the effluent gas from the first contacting chamber to a second gas/liquid contacting chamber and introducing to said second contacting chamber a second scrubbing liquid for gas/liquid contacting therein, wherein the first gas/liquid contacting in the first

chamber comprises co-current flow of the gas stream and scrubbing liquid, and wherein the second gas/liquid contacting in the second contacting chamber comprises countercurrent flow of the gas stream and the second scrubbing liquid through the second contacting chamber, wherein said second contacting chamber has a smaller volume than that of said first contacting chamber. 61.

62. The process according to claim 61 further comprising introducing a chemical reagent for contact with the gas effluent component to remove same from the gas effluent in the first scrubbing zone.

63. The process according to claim 61 further comprising introducing a gas into the first scrubbing zone to enhance removal of silane, if present.

64. The process according to claim 61 further comprising introducing an antifoam agent to scrubbing liquid for said gas/liquid contacting, to suppress foam production in the first and/or second scrubbing zone.